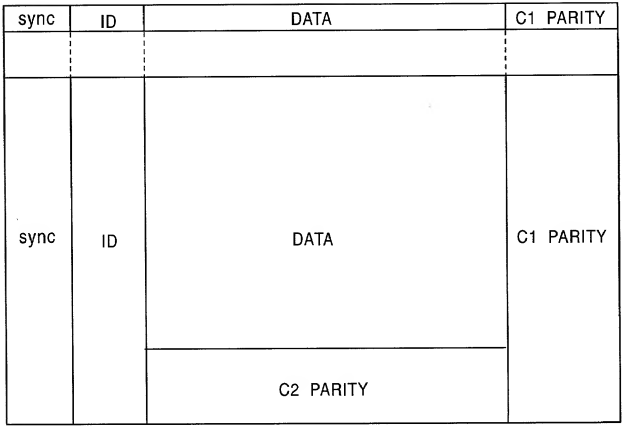
FIG. 1



TOT2E0"Z9EHT8G

FIG. 2A

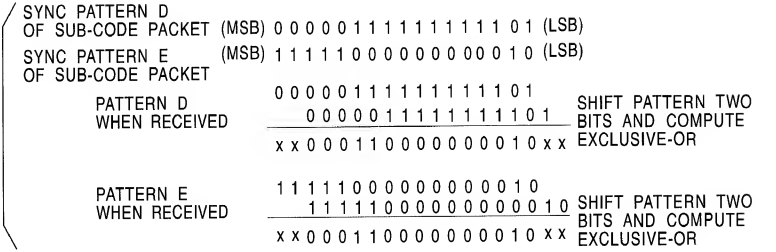
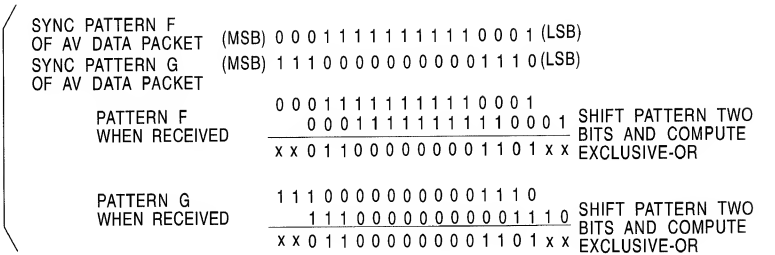


FIG. 2B



0814357.032101

FIG. 3

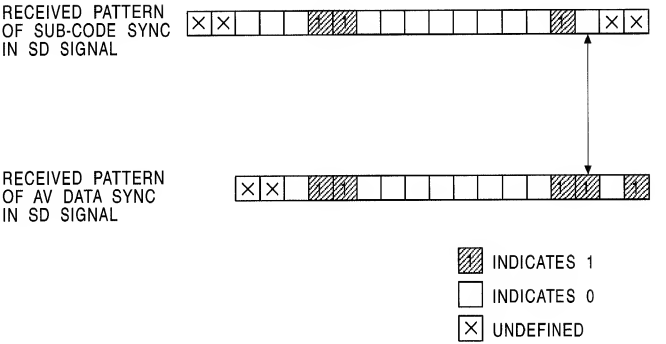


FIG. 4

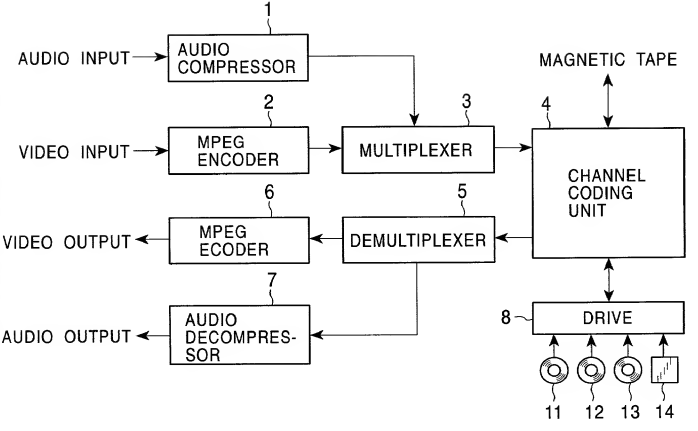

1
AUDIO INPUT
AUDIO COMPRESSOR
MAGNETIC TAPE
2
3
4
VIDEO INPUT
MPEG ENCODER
MULTIPLEXER
CHANNEL CODING UNIT
6
5
VIDEO OUTPUT
MPEG ECODER
DEMULTIPLEXER
7
8
DRIVE
AUDIO OUTPUT
AUDIO DECOMPRES-SOR
11
12
13
14

FIG. 5

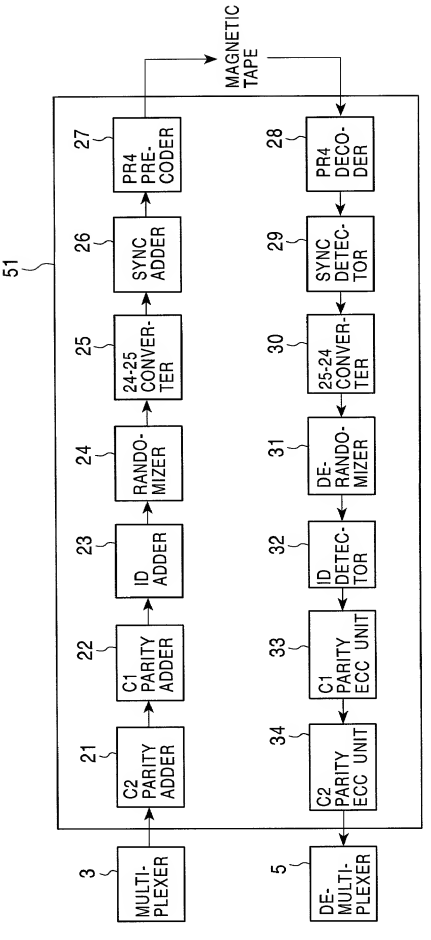

51
MAGNETIC TAPE
3
MULTI-PLEXER
21
C2 PARITY ADDER
22
C1 PARITY ADDER
23
ID ADDER
24
RANDO-MIZER
25
24-25 CONVER-TER
26
SYNC ADDER
27
PR4 PRE-CODER
5
DE-MULTI-PLEXER
34
C2 PARITY ECC UNIT
33
C1 PARITY ECC UNIT
32
ID DETEC-TOR
31
DE-RANDO-MIZER
30
25-24 CONVER-TER
29
SYNC DETEC-TOR
28
PR4 DECO-DER

FIG. 6A

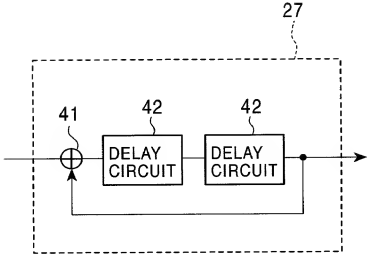

27
41
42
42
DELAY CIRCUIT
DELAY CIRCUIT

FIG. 6B

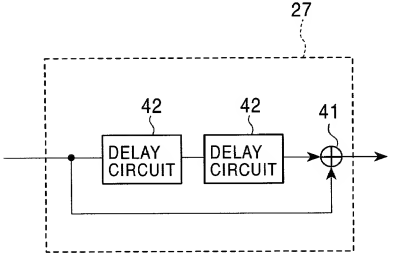

27
42
42
41
DELAY CIRCUIT
DELAY CIRCUIT

FIG. 7A

SYNC PATTERN H1 (MSB) 0 1 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0 (LSB)
SYNC PATTERN H1' (MSB) 1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 (LSB)
PATTERN H1 WHEN RECEIVED
0 1 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0
0 1 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0
x x 0 0 1 0 0 0 0 0 0 0 0 0 1 1 0 0 x x
SHIFT PATTERN TWO BITS AND COMPUTE EXCLUSIVE-OR
PATTERN H1' WHEN RECEIVED
1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1
1 0 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1
x x 0 0 1 0 0 0 0 0 0 0 0 0 1 1 0 0 x x
SHIFT PATTERN TWO BITS AND COMPUTE EXCLUSIVE-OR

FIG. 7B

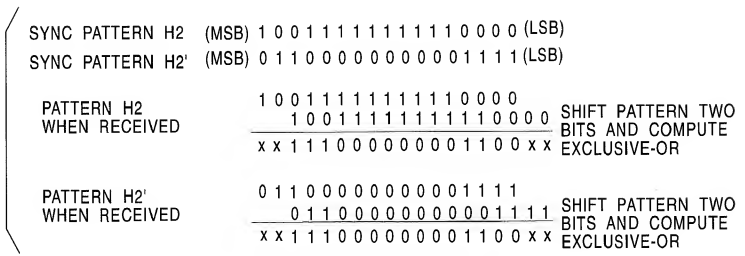

SYNC PATTERN H2 (MSB) 1 0 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0 (LSB)
SYNC PATTERN H2' (MSB) 0 1 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1 (LSB)
PATTERN H2 WHEN RECEIVED
1 0 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0
1 0 0 1 1 1 1 1 1 1 1 1 1 0 0 0 0
x x 1 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 x x
SHIFT PATTERN TWO BITS AND COMPUTE EXCLUSIVE-OR
PATTERN H2' WHEN RECEIVED
0 1 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1
0 1 1 0 0 0 0 0 0 0 0 0 0 1 1 1 1
x x 1 1 1 0 0 0 0 0 0 0 0 0 1 1 0 0 x x
SHIFT PATTERN TWO BITS AND COMPUTE EXCLUSIVE-OR

FIG. 8A

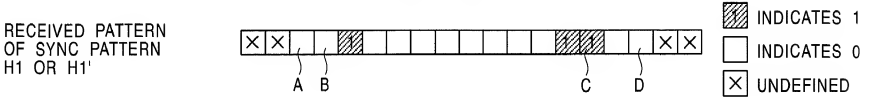


FIG. 8B

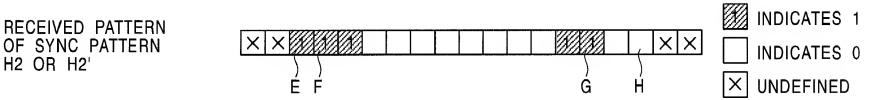


FIG. 8C

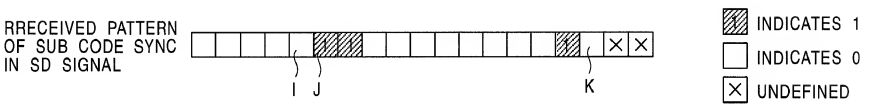


FIG. 8D

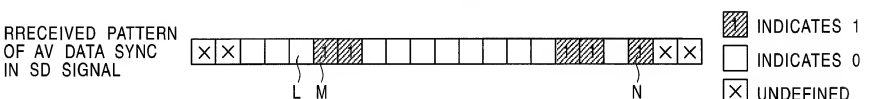
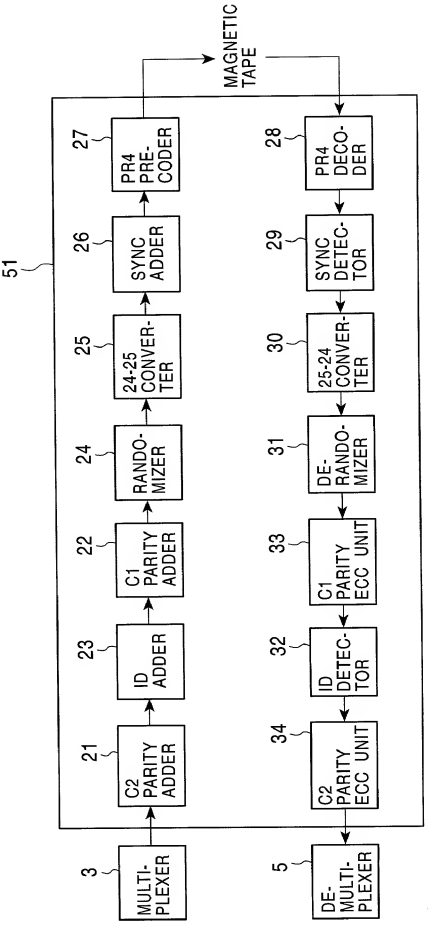


FIG. 9


51
MAGNETIC TAPE
3
MULTI-PLEXER
21
C2 PARITY ADDER
23
ID ADDER
22
C1 PARITY ADDER
24
RANDO-MIZER
25
24-25 CONVER-TER
26
SYNC ADDER
27
PR4 PRE-CODER
5
DE-MULTI-PLEXER
34
C2 PARITY ECC UNIT
32
ID DETEC-TOR
33
C1 PARITY ECC UNIT
31
DE-RANDO-MIZER
30
25-24 CONVER-TER
29
SYNC DETEC-TOR
28
PR4 DECO-DER